

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) An immunogenic conjugate molecule comprising hyaluronic acid moieties covalently bound to an immunologically- and physiologically- suitable polypeptide selected from the group consisting of: a bacterial toxin, toxoid, and bacterial or viral polypeptide carrier, wherein greater than about 50% of the hyaluronic acid moieties possess a non-reducing terminal glucuronic acid and/or unsaturated glucuronic acid residue, wherein the hyaluronic acid moieties are low molecular weight hyaluronic acid with a molecular weight of from about 400 kD or less and a molecular weight of about 600 daltons to about 400 kilodaltons or more, and said immunogenic conjugate induces an immune response to epitopes comprising the non-reducing terminal glucuronic acid or unsaturated glucuronic acid residues of said hyaluronic acid moieties.
- 2-3. (cancelled)
4. (previously presented) The immunogenic conjugate according to claim 1, wherein at least 90% of the low molecular weight hyaluronic acid moieties possess a nonreducing terminal glucuronic acid and/or unsaturated glucuronic acid residue.
5. (previously presented) The immunogenic conjugate according to claim 1, wherein at least 95% of the low molecular weight hyaluronic acid moieties possess a nonreducing terminal glucuronic acid and/or unsaturated glucuronic acid residue.
6. (previously presented) The immunogenic conjugate according to claim 1, wherein at least 98% of the low molecular weight hyaluronic acid moieties possess a nonreducing terminal glucuronic acid and/or unsaturated glucuronic acid residue.
7. (previously presented) The immunogenic conjugate according to claim 1, wherein at least 99% of the low molecular weight hyaluronic acid moieties possess a nonreducing terminal glucuronic acid and/or unsaturated glucuronic acid residue.
8. (previously presented) The immunogenic conjugate according to claim 1, wherein the low molecular weight hyaluronic acid moieties are at least about 4 glycosyl residues in size.

9. (previously presented) The immunogenic conjugate according to claim 1, wherein the low molecular weight hyaluronic acid moieties possess about 2 to about 20 disaccharide subunits.
10. (previously presented) The immunogenic conjugate according to claim 9, wherein the low molecular weight hyaluronic acid moieties possess about 2 to about 10 disaccharide subunits.
11. (currently amended) The immunogenic conjugate according to claim 1, wherein the polypeptide carrier is selected from the group consisting of: tetanus toxoid, diphtheria toxoid, pertussis toxoid, a streptococcal immunogenic polypeptide, an influenzal immunogenic polypeptide, a meningococcal immunogenic polypeptide, a pneumococcal immunogenic polypeptide, and an *E. coli* immunogenic polypeptide.
12. (previously presented) The immunogenic conjugate according to claim 31, wherein the polypeptide carrier is a porin from neisseria.
13. (currently amended) The immunogenic conjugate according to claim 1, wherein the hyaluronic acid moieties are directly linked to the immunologically- and physiologically-suitable polypeptide carrier selected from the group consisting of: a bacterial toxin, toxoid and bacterial or viral polypeptide.
14. (previously presented) The immunogenic conjugate according to claim 1, wherein the conjugate elicits antibodies that bind an epitope comprising glucuronic acid or unsaturated glucuronic acid as the nonreducing terminal sugar of a low molecular weight hyaluronic acid moiety.
15. (previously presented) The immunogenic conjugate according to claim 1, wherein the conjugate elicits antibodies that bind capsular hyaluronic acid moieties present in bacteria.
16. (previously presented) The immunogenic conjugate according to claim 15, wherein the bacterium is group A streptococci or group C streptococci.
17. (currently amended) A pharmaceutical composition comprising the conjugate according to claim [[3]]1 and a pharmaceutically acceptable carrier.
18. (original) The pharmaceutical composition according to claim 17, further comprising a physiologically acceptable adjuvant.
19. (withdrawn) A method of preparing a low molecular weight hyaluronic acid moiety – polypeptide conjugate molecule comprising covalently linking low molecular weight hyaluronic

acid to an immunologically- suitable polypeptide, wherein about 50% or greater of the low molecular weight hyaluronic acid has a glucuronic acid and/or an unsaturated glucuronic acid residue at the nonreducing terminal.

20. (withdrawn) The method according to claim 19, wherein the method comprising covalently linking a low molecular weight hyaluronic acid to an immunologically-suitable polypeptide comprises reductive amination.

21. (withdrawn) A purified antibody which binds to the immunogenic conjugate molecule according to claim 3.

22. (withdrawn) The purified antibody according to claim 21, wherein the low molecular weight hyaluronic acid moieties are at least about 4 glycosyl residues in size.

23. (withdrawn) The purified antibody according to claim 22, wherein the hyaluronic acid moieties are at least about 4 glycosyl residues and no more than about 40 kD in size.

24. (withdrawn) A pharmaceutical composition effective for treating or inhibiting group A streptococcal or group C streptococcal infection comprising an antibody selected from the group consisting of an antibody elicited by the composition according to claim 17, an antibody according to 21, or an antibody elicited by a low molecular weight hyaluronic acid moiety conjugated to a liposome.

25. (withdrawn) A method of eliciting an antibody response in a mammal, said method comprising the step of administering to the individual mammal an amount of a pharmaceutical composition according to claim 17 in an amount which is sufficient to elicit an antibody response.

26. (withdrawn) The method according to claim 25, wherein the mammal is a human.

27. (withdrawn) The method according to claim 25, wherein the pharmaceutical composition is administered intramuscularly, subcutaneously, intraperitoneally or intravenously.

28. (withdrawn) The method according to claim 25, wherein the pharmaceutical composition is administered in an amount of about 0.1 to about 50 micrograms per kilogram body weight.

29. (currently amended) A vaccine comprising the immunogenic conjugate according to claim [[3]]1, wherein the vaccine elicits an immune response in humans, said immune response comprising production of anti-low molecular weight hyaluronic acid antibodies.

30. (withdrawn) A method of inhibiting streptococcal infection in a mammal, comprising administering to the mammal a pharmaceutical composition according to claim 3 in an amount sufficient to inhibit infection.

31. (withdrawn) A method of inhibiting progression of infection in a mammal by bacteria containing HA, comprising administering to the mammal a composition comprising the pharmaceutical composition according to claim 24 in an amount sufficient to inhibit progression of the infection.

32. (withdrawn) The method according to claim 31, wherein the bacteria are group A streptococci or group C streptococci.

33. (withdrawn) A diagnostic immunoassay kit for detecting infection by streptococci comprising an antibody according to claim 21.